14 An integrated pest management plan for the Brown Tree Snake on Pacific Islands

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The Brown Tree Snake potentially could be controlled on Guam and other Pacific islands using an integrated program which incorporates knowledge acquired from ecological, behavioral, and physiological studies of this species. Combinations of practical nonlethal and lethal control methods would be needed to reduce Brown Tree Snake movements and density within habitats important for wildlife or human use and to decrease the chances of the Brown Tree Snake being introduced to other Pacific islands from Guam. Direct methods of control actively reduce snake density by removing snakes from an area, while indirect methods attempt to reduce damages by snakes with methods which may or may not reduce their density. Nonlethal methods of Brown Tree Snake control could include habitat modifications, traps, and electrical barriers. Habitat modifications, such as the reduction of daytime retreats and prey populations, may reduce or eliminate snake dispersal into critical areas. Snake traps and baits could also be used to detect, monitor, and capture snakes. Electrical barriers are presently being developed on Guam to control the movements of the Brown Tree Snake. Lethal methods for Brown Tree Snake control include lethal mechanical devices, toxicants, disease, and fumigants. Methyl bromide is being evaluated as a potential fumigant for containers leaving Guam, and research is presently being conducted to identify potential toxicants and diseases which may be lethal or disabling to the Brown Tree Snake. Snake-free habitat could be created for endangered species by surrounding areas with effective barriers and actively or passively removing snakes within the fenced areas.

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